

Claims

What is claimed is:

- 5 1. A flexible container comprising:
 a plurality of panels joined together to form a sleeve, the panels each having an end edge
 that cooperate to define an imaginary plane at one end of the sleeve; and
 an end panel connected to the panels at the one end of the sleeve, the end panel having at
 least one portion extending beyond the imaginary plane.
- 10 2. The container of claim 1 wherein the panels form a polygonal sleeve.
3. The container of claim 1 wherein the panels each have a second end edge that
 cooperate to define a second imaginary plane at another end of the sleeve, the container further
 15 comprising a second end panel connected to the panels at the other end of the sleeve, the second
 end panel having at least one portion extending beyond the second imaginary plane.
4. The container of claim 1 wherein the portion extends outwardly from the sleeve.
- 20 5. The container of claim 1 wherein the portion extends inwardly towards the
 sleeve.
6. The container of claim 1 wherein the plurality of panels comprises four panels
 cooperatively forming a sleeve having a generally rectangular cross-section.
- 25 7. The container of claim 6 wherein two opposing panels are gusseted panels.
8. The container of claim 7 wherein the gusseted panels have a gusset fold.
- 30 9. The container of claim 1 wherein the end panel is contiguous with the plurality
 of panels.

10. The container of claim 1 wherein the end panel comprises a plurality of connecting members.

5 11. The container of claim 10 wherein the connecting members converge to a point.

12. The container of claim 10 wherein the connecting members converge to a line.

13. The container of claim 10 wherein the connecting members converge to a
10 polygon.

14. The container of claim 1 wherein one of the panels has a port.

15. The container of claim 1 wherein the port has a port closure connected thereto.
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16. The container of claim 15 wherein the port closure comprises:
a tube having a first end and a second end, the first end adapted to be connected to the
port;

a plug inserted into the second end of the tube, the plug being made from a gas
20 permeable porous material;

a cover having a first member and a second member, the second end of the tube being
positioned between the members, the members being sealed together at their respective
peripheral edges; and

an elastic band wrapped around the cover and tube.
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17. A flexible container comprising:

a plurality of panels joined together to form a sleeve, the panels each having an end edge
that cooperate to define an imaginary plane at one end of the sleeve; and

an end panel connected to the panels at the one end of the sleeve, the end panel having a
30 plurality of converging surfaces, the surfaces having at least one portion extending beyond the
imaginary plane.

18. The container of claim 17 wherein the converging surfaces extend outwardly from the sleeve.

19. The container of claim 17 wherein the converging surfaces extend inwardly
5 towards the sleeve.

20. The container of claim 17 wherein the panels each have a second end edge that cooperate to define a second imaginary plane at another end of the sleeve, the container further comprising a second end panel connected to the panels at the other end of the sleeve, the second
10 end panel having a plurality of converging surfaces, the surfaces having at least one portion extending beyond the second imaginary plane.

21. A large volume flexible container capable of containing a fluid to be maintained under sterile conditions comprising:

15 a first panel, a second panel, a third panel, and a fourth panel connected together to form a generally cubic structure,

the first panel having a central segment adjacent an end segment, the central segment having a longitudinal edge and the end segment having a tapered edge extending from the longitudinal edge, an angle being defined between the longitudinal edge and the tapered edge,
20 the angle being in the range from about 135.01° to about 138° .

22. The container of claim 21 wherein the angle is in the range from about 135.5° to about 136.5° .

23. The container of claim 21 wherein the angle is 136° .